

## **Advanced Probability and Inference I Statistics 6346**

**Lecture:** Monday, Wednesday, Friday, 11:15 – 12:05, OSB 108

**Instructor:** Eric Chicken, OSB 210A  
Office hours: TBD

**Teaching Assistant:** Dongrui Zhong, OSB 209E, [dzhong@fsu.edu](mailto:dzhong@fsu.edu)  
Office hours: Tuesday, 3:30 – 5:30; Wednesday, 2:00 – 3:30

**Text:** There is no required text for this course. Some fine reference books include

*Probability and Measure*, Billingsley, 1995.

*A User's Guide to Measure Theoretic Probability*, Pollard, 2002.

**Goal of Course:** Students will be able to use measure theoretic methods to derive and explain probabilistic identities, inequalities and theorems.

**Course topics:** The material covered may include, but is not limited to,

- Measure spaces
- Measurable functions
- Expectation, conditional expectation
- Product spaces
- Independence
- Convergence, sums, limit theorems
- Characteristic functions
- Martingales

**Exams:** There will be four equally weighted exams. The exams are approximately four weeks apart. The final exam is during the university-scheduled period for this class time.

**Homework:** There will be regular homework assignments. Homework will not be collected. These assignments will reinforce lecture and prepare you for the exams.

**Course Website:** <http://canvas.fsu.edu>

**Grades:** Your course grade is based on the exams. Final grades are assigned based on your performance on these exams. Your grades are maintained on Blackboard. There will be no extra work available to enhance your grade, so put in the appropriate effort on the assigned homework.

**Academic Honor Policy:** The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to “. . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University.”

(Florida State University Academic Honor Policy, found at <http://fda.fsu.edu/Academics/Academic-Honor-Policy>.)

**Americans with Disabilities Act:** Students with disabilities needing academic accommodation should:

- (1) register with and provide documentation to the Student Disability Resource Center; and
- (2) bring a letter to the instructor indicating the need for accommodation and what type.

Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from the Student Disability Resource Center has been provided.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center  
97 Woodward Avenue, South  
108 Student Services Building  
Florida State University  
Tallahassee, FL 32306-4167  
(850) 644-9566 (voice)  
(850) 644-8504 (TDD)  
[sdrc@admin.fsu.edu](mailto:sdrc@admin.fsu.edu)  
<http://www.disabilitycenter.fsu.edu/>

**University Attendance Policy:** Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.